

Table 1. Legend: Mor = morphology discussed and illustrated; Bio = discussion of biology and biogeography; Lit = literature review; Fam = illustrated key to family; Gen = illustrated key to genera; Spe = illustrated key to species; Pan = catalog of Panamanian species; Mes = catalog of Mesoamerican species.

Taxa	Mor	Bio	Lit	Fam	Gen	Spe	Pan	Mes
Collembola	Y	Y	Y	Y			Y	Y
Ephemeroptera		Y	Y		Y		Y	Y
Odonata		Y	Y		Y	Y	Y	
Odonata: Gomphidae					Y	Y	Y	
Odonata: Zygoptera: Pseudostigmatidae		Y	Y					
Plecoptera	Y					Y	Y	
Embiidina			Y	Y	Y	Y	Y	
Orthoptera: Tettigoniidae	Y	Y	Y	Y	Y	Y	Y	
Orthoptera: Gryllidae/Gryllotapidae	Y		Y	Y	Y		Y	
Dermaptera	Y	Y	Y	Y	Y		Y	
Isoptera	Y	Y	Y	Y	Y		Y	
Isoptera: Termitidae: Apicotermitinae	Y		Y		Y		Y	
Zoraptera	Y	Y	Y			Y	Y	Y
Psocoptera: Psocidae: Thyrsophorinae	Y	Y	Y		Y	Y	Y	
Homoptera: Psylloidea (larva)	Y		Y	Y	Y	Y	Y	
Heteroptera:								
Gelastocoridae/Gerridae/Mesoveliidae/Sal-								
dididae/Veliidae (Marine)	Y	Y	Y	Y	Y	Y	Y	Y
Thysanoptera		Y	Y				Y	
Coleoptera: Pselaphidae: Pselaphinae	Y		Y		Y	Y	Y	
Coleoptera: Lamellicornia: Passalidae	Y	Y	Y			Y	Y	
Coleoptera: Chrysomelidae: Cassidinae	Y	Y	Y		Y		Y	
Strepsiptera		Y	Y				Y	Y
Neuroptera/Megaloptera	Y	Y	Y	Y	Y			Y
Hymenoptera: Mutillidae			Y	Y	Y		Y	
Hymenoptera: Formicidae: Attini			Y			Y	Y	
Hymenoptera: Apidae: Meliponinae		Y	Y		Y	Y	Y	Y
Trichoptera							Y	
Trichoptera: Hydroptilidae: Leucotrichiini			Y			Y		Y
Lepidoptera: Hedyliidae		Y	Y			Y	Y	
Lepidoptera: Nymphalidae			Y				Y	
Lepidoptera: Nymphalidae: Hamadryas		Y	Y			Y	Y	
Mecoptera: Bittacidae	Y	Y	Y			Y	Y	Y
Diptera: Pantophthalmidae	Y	Y	Y		Y		Y	Y
Diptera: Asilidae	Y	Y	Y		Y			Y
Diptera: Pipunculidae	Y	Y	Y			Y		Y

Insects of Panama and Mesoamerica also includes several non-taxonomic studies which emphasize important principles for the entomologist working in the Neotropics. The analysis of the distribution and seasonality of the cicadas (Wolda and Ramos) reveals a between-site diversity which, if general among other orders of insects, indicates the restricted geographical distribution of many species. Seasonality is another factor to consider when attempting to appraise biodiversity in the context of conservation biology.

The marine Heteroptera of the Eastern Tropical Pacific (Polhemus and del Rosario Manzano) are treated as the fauna of a natural biome rather than the artificial limitation of a particular geopolitical division. Similar studies of other biomes or specialized habitats will undoubtedly reveal significant insights into the assembly of tropical communities.

Another contribution requiring special note is the treatment of the leaf-rolling weevils (Coleoptera: Attelabidae) by the late George B. Vogt, who presents a long term field study of the host plant associations of these beetles over much of their North American ranges. In this same vein, Loye discusses the host plant relationships and ecological diversity of treehoppers (Homoptera: Membracidae and Nicomiidae). The study of immature stages and host plant associations is central to an understanding of the relationship and biology of many orders. The data are difficult to collect at best, and almost impossible for the visiting entomologist based outside of the tropics. This is the single most important opportunity presented to investigators working for extended periods in the tropics. This reviewer had anticipated that the pioneering work of Annette Aiello, who has spent many years rearing Lepidoptera in Panama, would be presented here, but it unfortunately was not. Other nonsystematic contributions cover aspects of dry season strategies of two butterflies, and the reproductive behavior of *Urania*.

Not everything in this volume is at the high level of the studies selected for comment. The biogeographic context in particular is weak. Significant biogeographical principles acting across the Panamanian land bridge are ignored, i.e., the angiosperm flora of Central American lowland rain-forest is identical to or derived from South America, whereas the montane flora of South America is of North American origin (Gentry, 1982).

Perhaps the first book a tropical naturalist should own is *Flora of Barro Colorado Island* (Croat, 1978), but now I recommend the purchase of *Insects of Panama and Mesoamerica* by every entomologist contemplating study in the Neotropics. This is a big, expensive book, but it would be a mistake to simply copy the chapter dealing with one's narrow interest and miss the opportunity to appreciate the magnificence of this tropical fauna as a whole. There are useful abstracts in English and Spanish as well as a taxonomic index.—Morton S. Adams, Section of Invertebrate Zoology, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213.

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Caterpillars: Ecological and Evolutionary Constraints on Foraging.—N. E. Stamp and T. M. Casey (eds.). 1993. Chapman and Hall, New York. xiii + 587 pp. Hard cover. \$75.00 U.S.

Although butterflies and moths are the most well known and widely appreciated invertebrates, comparatively little attention has been given over to their larvae—the caterpillars—except as unwelcome guests in our gardens, forests, and crops. As a